

ANIMAL LIFE

127 The fauna of Pukapuka is similar to that of other Polynesian atolls. The pig, chicken, and European rat were introduced after white contact. The native rat was trapped, but not eaten. The native dog was unknown.

FISH

136 The Pukapukans empirically group the fish in their environment first into major classes of beach fish, lagoon fish, reef fish, reef fish outside the lagoon, and deep-sea fish, and second, into "families". In some cases, the larger fish of one family are given a different name from the smaller fish of the same family. In other cases, however, stages in the growth of the same fish from infancy to maturity are indicated by adding the following adjectives to the name of the fish: *liki*, *lewu*, *tino lewu*, *tawila*, for young fish; *towolo*, *towowolo*, *wolo*, *punua*, *tino wolo*, *tapulanga*, *tongi* and *palu*, for the large fish. With some fish again, the two systems for indicating development are combined, the name of the fish changing when maturity has been reached. The adjective *palu* associated with fish names, applies to a fish that inhabits very deep water up to 300 fathoms, though it is similar to another fish inhabiting shallower water. Thus, *palu malau* is a deep-water fish that looks like the smaller reef *malau*. The adjective *tawila* refers to small, newly-spawned fish that are driven into the lagoon shallows by bad weather.

137 The following list contains all the native names of fish that could be remembered by informants as being found in Pukapukan waters. Where possible I have also included scientific names, most of them obtained since I left Pukapuka by Robert Dean Frisbie. Mr. Frisbie asked a number of informants to identify the fish figured by Fowler (9). Other names I have procured from an examination of casts in Bernice B. Bishop Museum.

Akaka: species of *Belone*, *Strongylura*, and *Ablennes*.

Akula panoko: *Tetrapturus mitsukurii*.

Akula toa: *Isophorus orientalis*.

Aku pa: similar to aku tangata, but has a squarer body and upper and lower jaws of equal length.

Aku tangata: *Strongylura indica*.

Ali towolo: *Platophrys thompsoni*.

Aliiki: silver mullet (? *Mulloidichthys*).

Ali nikatea: similar to pateletele.

Atu: *Eudynamis pelamis* (*houito*).

Atule: *Selar crumenophthalmus*.

Aua: species of silver mullet, larger than the aliiki.

Awa: *Chanos chanos*.

Awe: a long slim *albacore*.

Ayetoa: black deep-sea shark, sharp nose, single dorsal fin, single caudal fin, long pectoral fin, long upper finke to caudal fin, a fast swimmer and a man-eater.

Ayiu: *Caranx lugubris*.

Ayole: a mulletlike fish, scaleless, white in color with a speckled dorsal fin (*Polydactylus*?).

Ayou: deep-sea shark, white belly, black head, very flabby skin, four dorsal fins, two anal fins, earlike protuberance on head.

Eve: species of rock or reef grouper, with smoother skin than the patuki (? *Grammistes sexdentatus*).

Ile: species of *Hemiramphus* and *Hyporhamphus*.

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- Ika aututenu: a rare fish, very large mouth and large teeth; white tail turns red when the fish dies.
- Kaka: a species of rock grouper.
- Kaka tus: *Physiculus kaupi*.
- Kakatus: *Malacanthus hoedtii*.
- Kakai: *Gerrhonotus macropterus* (cast identification) or *Euthymus alletteratus* (identification by informants from plate), the common albicore.
- Kalevaleva: *Alutera scripta*.
- Kaloma: yellow mullet.
- Kalou moana: *Lycodontis flavomarginata*.
- Kalou uli: a black deep-sea eel.
- Kalou ulu akau puka: *Lycodontis meleagria*.
- Kalou ululu akau: *Echelynassa canina*.
- Kalou wolo kena: a black and white spotted deep-sea eel, conger eel (?).
- Kamai: *Elagatis bipinnulatus*.
- Kanae: a species of silver mullet (? *Mulloidichthys*).
- Kanakana langi: dolphin.
- Kanakana koyikoyi: dolphin.
- Kanakana mulamula: *Coryphaena hippurus*.
- Kapoe: *Promethichthys prometheus*.
- Kata: a small reef and beach shallow fish.
- Katakata: a fish similar to the kata, a *Serranus*.
- Katua papa: *Salarias setra*.
- Katutua: *Chonophorus genivittatus*.
- Katuli: *Apoilus somatus* or *Upeneus porphyreus*.
- Kaupatirwao: a long, red, eel-like, deep-sea fish.
- Kawa: a species of silver mullet (? *Mulloidichthys*).
- Kawulu: *Upeneus multifasciatus*.
- Kawulu wuluyama: *Upeneus pleurostigma*.
- Kawuten: *Upeneoides arge*.
- Kayuye: a lagoon or sea fish, similar to *Hepatus triostegus* (manini), reddish in color.
- Kikitua langi: similar to the malau, but with a longer head and a poisonous dorsal fin.
- Kiki yamoa: similar to malau, but rounder and fatter.
- Kiki: *Meuschenia* buniwa.
- Kikio tai: *Albula vulpes*.
- Kokili: *Balistapus aculeatus*.
- Kokili moana: *Balistes boreas*.
- Kokili tiapolo (modern name): *Balistapus rectangulus*.
- Kokili yiku kena: a white deep-sea trigger fish.
- Komuli: *Caranx elacate*.
- Kopelu: *Decapterus sanctae-helenae*.
- Koimu: *Holacanthus potteri*.
- Kotimu moana: *Chromis verater*.
- Kupakupa: a small ocean fish, similar in appearance to *Ruvettus*, but inhabiting the surface waters, and caught occasionally when netting malolo.
- Lai: Similar to *Caranx kuhlii*, but lai has no white on tail.
- Lalaila: a small shark, light yellow with a white-tipped dorsal fin.
- Lalawi: *Cheilinus unifasciatus*.
- Lalawutu: *Gnathanodon speciosus*.
- Lali: a grouper, with red skin on which are small darker red spots.
- Launini: *Sphyrna syaena*.
- Launumi: *Chaetodon trifasciatus*.
- Lawi: probably a parrot fish, but has dog-like teeth and yellow scales.
- Lelelonge: *Caranx helvolus*.
- Loi: *Cephalopholis argus*.
- Lokie: *Eulamia melanopterus*.
- Lui: *Caranx ascensionis*.
- Lulu au: *Zanclus canescens*.
- Lulu: a scaleless, lagoon and coral fish, with a black and yellow stripe and a long, flowing dorsal fin.
- Lupo: family *Carangidae*.
- Ma: *Hepatus fuliginosus*.
- Ma pate: *Hepatus harti*.
- Maito: similar to ma, but with red stripes on the back.
- Malali: *Anampses godeffroyi*.
- Malates: similar to the parrot fish, but has tremendous blue scales, pronounced teeth, and feeds principally on *Tridacna* shellfish.
- Malau: *Myripristis multiradiata*.
- Malau anu: *Myripristis adusta*.
- Malau loa: a large kikitua langi fish.
- Malau watu: *Osetichthys japonicus*.
- Malava: a reef fish with a poisonous dorsal fin similar to the palangi. Very abundant during the first evening rising of the star Antares in June-July.
- Malolo: the common flying fish.
- Malolo panaku: a long, slim flying fish.
- Malolo yue: a flying fish with a large belly like the balloon fish, not eaten or caught.
- Malu: a shark with dark-colored back, pointed snout and black-tipped dorsal fin (*Eulamia*).

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Manini: *Hepatus triostegus*.
 Mango: Shark (generic name).
 Maono: *Hepatus leucoparcus*.
 Maono uli: *Hepatus guttatus*.
 Mata ele: a red rock grouper with black eyes.
 Matapula: *Taractes steindachneri*.
 Matapupula: a fish similar to the malau, caught when fishing malau outside the reef.
 Matsuli: a small flying fish, with two large ventral and two large pectoral fins. Never seen in daytime and never hooked.
 Mataweo: the largest green turtle.
 Matawula: a short, very fat kakai, with short caudal fin.
 Mayi: a silver mullet with a silver spot under the pectoral fin.
 Mamea, mamea tawa, vetevete mamea: mamea for species of yellow mullet (*Pseudosciaenops*) with slightly reddish skin.
 Moamoa: a yellow fish, almost perfectly cubical in shape, never fished or eaten.
 Moanga: probably a species of the yellow mullet family, though brighter in color than the kakama.
 Moi: *Polydactylus sexfilis*.
 Moye: a reef fish.
 Mu: *Monotaxis grandoculis*.
 Muka: squid.
 Muna: probably a snapper, but with pronounced doglike teeth.
 Ngallio: probably the garfish or garpike.
 Ngangono: a large atu (bonito).
 Ngauon: a red snapper (*Pagrosomus*?), but without the black spot characteristic of the taiva.
 Ngatala: a red snapper with a black spot forward of the caudal fin.
 Ngutukao: the porpoise.
 No: *Scorpaenopsis cacopsis*.
 No wutu: *Merluccius macrocephalus*.
 Palava: *Caranx sexfasciatus*.
 Palao: a green reef fish, probably a parrot fish (? *Callyodon*), with black spotted stripes.
 Pala: *Acanthoxybilus notandri*.
 Palangi: a large manini fish.
 Palata: *Alopius vulpinus*.
 Palamamaga: a green reef fish, probably a parrot fish (*Callyodon bleekeri*?).
 Palao: (?) *Ammocopus curvier*.
 Palu aue: large deep-sea fish, black, with a large mouth, perhaps a grouper.

Palu kakai: *Sarda chilensis*.
 Palu katakata: a giant deep-sea spotted grouper.
 Palu kilitala: similar to the Ruvettus.
 Palu komuli: *Seriola purpurascens*.
 Palu malau: a large deep-sea malau.
 Palu mango: a large deep-sea shark, with very soft bones and flesh, grows up to 18 feet long, rarely comes to the surface.
 Palu matapula: a large deep-sea fish of the malau family.
 Palu mumu: *Monotaxis grandoculis*.
 Palu paniwi: a large deep-sea paniwi fish.
 Palu tacyi: *Ruvettus pretiosus*.
 Palu tavatava: a large albacore, one of the Scombroidea.
 Palu tuna: a giant red grouper.
 Palu yilao: a giant yilao fish.
 Palu yue: the giant balloon fish.
 Palu uli: the giant uli.
 Palu ulua: a giant Carangoid.
 Palu wutu: a giant fish similar to the paniwi, has silver scales.
 Paniwi: *Beryx decadactylus*.
 Papa: *Variola louti*.
 Papata: a small coral fish, habits similar to the kakama.
 Papo: one of the Pomacentridae.
 Pateletele: *Platophrys mancus*.
 Patuki: a variety of the reef grouper, *Serranus*.
 Patuki wutu: *Cirrhitis pinnulatus*.
 Patuli yiva: a deep-sea grouper (*Serranus*), very strong and fierce.
 Peva: a striped kavali fish of the family Carangidae.
 Pilipili wehe: octopus.
 Piopio: a reef grouper with red eyes.
 Ponepone: *Chaetodon reticulatus*.
 Pui: *Echinops zebra*.
 Pula: a reef and lagoon fish with a red tail.
 Puaga mango: *Cantherines pardalis*.
 Ta alo: *Holocentrus diadema*.
 Ta: similar to malau, but with longer body and poisonous; also has poisonous barbs, gill sheaths and pectoral and dorsal fins.
 Taiva: *Lutjanus monostigma*.
 Talap: a variety of rock grouper (*Serranus*).
 Tawacyi: a species of silver mullet, a small kawa fish.

Tamale: similar to *Lutjanus gibbosus* save that head of snout is not so pointed.
 Taniwa: perhaps the angler fish; a deep-sea, sharp-toothed fish.
 Tangau: a red snapper, similar to the ngatau.
 Taotaoama: a small white fish with a long dorsal fin.
 Tatatau: *Chaetodon quadrimaculatus*.
 Tatiwelo: a small taotaoama fish.
 Tataia: similar to the malu shark, but with no color on the dorsal fin.
 Tatu: a fish that looks like a small barracuda about a foot long (*Sphyrna*?).
 Tankotikoti: *Chaetodon lineolatus*.
 Tavatava: *Scomber japonicus* (?).
 Tawola: whale; tawola tu, the Right whale.
 Tawoni: a scarce red fish, in appearance midway between a mullet and a grouper.
 Testaclous: similar to *Forcipiger longirostris* except that testaclous is purple, not pale brown.
 Teni: a short fat kakai, with a long pectoral fin.
 Tikava: a large red mullet with a red lateral fin.
 Titi-meyim: *Chaetodon ornatissimus*.
 Tiwitiwi: *Chaetodon setifer*.
 Totala: *Tetodon stellatus* (cast); similar to *Chilomycterus affinis* (plate), except that totala has many more spines, at least 1 spine to $\frac{1}{2}$ square inch.
 Tuiu: a striped lagoon eel, toothless, edible.
 Tumelenga: a snapper with yellow-black stripes on the body.
 Tuna taupelepele: *Uropterygius tigrinus*.
 Tuna wenua: an eel with a white belly, black head and a pectoral fin or earlike lobe on the side of the head; inhabits fresh water.
 Tupoupu: a small white fish, reef or lagoon.
 Tutuku: *Hemitirichthys aeter*.
 Tutupuku: a small reef fish.
 Uli: a large red mullet, with red lateral fin; larger than the tikava (*Upeneus*?).
 Uluo: the common parrot fish (? *Callyodon*).
 Uluu: *Caranx sexfasciatus*.
 Ululenga: a green reef fish, probably a parrot fish (*Callyodon blochii*?).
 Uluu: probably the sperm whale.
 Ulu watu: a large petrel fish.
 Ume stu: *Naso hexacanthus*.

Ume pate: *Naso lituratus*.
 Ume tala: *Naso annulatus*.
 Ume tao: *Naso brevirostris*.
 Umuenga: *Balistes capistratus*.
 Unaliki: *Serranus fuscoguttatus*.
 Uwou: a silver mullet with a silver spot under the pectoral fin; larger than the mayi (? *Mulloidichthys samoensis*).
 Uwou tukutai: a species of silver mullet.
 Vete memea: *Mulloides auriflamma*.
 Wai: a tailless black ray (*Pteroplatea*).
 Wai kave: a black ray (*Dasyatis*); the base of the long tail is poisonous.
 Wai lepu: another black ray similar to the wai kave.
 Wakau: a very large red shark, brightly colored, two dorsal and two anal fins; follows the albacore schools.
 Walala: *Cantherines sandwichiensis*.
 Wanga: a large yellow fish, perhaps a species of snapper.
 Wapuka: *Stereolepoides thompsoni*.
 Wawalu: *Manta birostris*.
 Welu: an octopus.
 Witiwiti: a lagoon and reef fish, similar to the mamini, but with a very long anterior dorsal fin.
 Wo: a tiny deep-sea mimow, comes close to the reef in large schools.
 Wono: the barracuda.
 Woni: *Chelone midas*.
 Woni kea: *Chelone imbricata*.
 Wu: *Callyodon sordidus*.
 Wuakau: a light yellow fish, doglike teeth, large scales, two dorsal fins; similar to the parrot fish.
 Wuakula: the green duckbill fish.
 Wuatua: a giant member of the wu species (see below).
 Wuikamoyo: a parrot fish with red stripes along the back.
 Wukoti: similar to the wuakau, but has a stripe across the back.
 Wumanga: similar to the wuakau, but whitish.
 Wumomoe: *Leptoscarus vaigiensis*.
 Wumofila: similar to the wuakau, but has reddish scales and yellow teeth.
 Wutalala: similar to the malu, but has a black stripe across the back; poisonous barbs.
 Wuvavane: similar to the wuakau, but with scales of variegated colors.
 Yama kula: *Chaetodon fremblii*.

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Yayaalna: one of the Carangoids.
Yengayenga: a red striped fish weighing about 3 lbs. Perhaps 6 or more related fish vaguely known to the Pukapukan fisherman but not named.
Yika kauluyaama: *Polymixia japonica*.
Yika koti a poteka: *Histiogaster typus*.
Yika yawan: *Pterois sphex*.
Yikutea: *Balistes vidua*.

Yika moko (?): *Coris flavovittata*.
Yiloa: *Aprion virescens*.
Yimu: *Balistes ringens*.
Yipa: a young flying fish.
Yoke: a fish similar to the kavali Carangoid; distinguished from the yoke mango, a young shark.
Yoyala: *Chaetodon* sp.
Yue: *Tetrodon meleagris*.

Informants recognized the following fish as being present in Pukapukan waters, but they were unable to recall the native names: *Chaetodon unimaculatus*, *Heniochus acuminatus*, *Lutjanus gibbus*. Informants recognized the following three fish as belonging to the *uwu* family, but in default of colored plates, they were unable to give them definite names: *Thalassoma umbrastigma*, *T. trilobata*, and *T. balliui*.

BIRDS

The following is a list of the birds found on Pukapuka:

Akiaki: a white tern with a black semicircle round the upper part of each eye.
Ali: the sooty tern, a visiting, nonresident bird (*Sterna fuscata*).
Kaka: the white or ghost tern. Two named varieties: kaka vai, with a small black spot on the top of the head; kaka tea (*Gygis alba*).
Kaleva: the native cuckoo, apparently an indigenous bird (*Urodynamis taitensis*).
Kawe: a curlew (*Numenius tahitiensis*).
Kotawa: frigate bird (*Fregata minor*).
Kiu: probably a variety of plover with a brownish-red beak.
Kolili: another variety of plover or sandpiper.
Lakia: black tern with a white spot on the top of the head (*Anous minutus melanogenys*).
Lewulewu: a small blue-grey beach bird, now extinct, which laid eggs in the sand; probably a rail.
Lulu: a large white-breasted sea bird, larger than the booby (*Sula* sp. ?); rare.
Lupe: said by natives to be the same as the Samoan pigeon (*Globicera pacifica*).
Mann uli: a large, black sea bird, with a white breast, resembling the ngongo.
Matiku: the reef heron (*Demigretta sacra*). Two varieties: matiku kenakema, the white heron; matiku uli, the blue heron.
Noa: a large sea bird, with straight beak, and when young, one black stripe across the breast (*Sula* sp. ?).
Ngongo: the noddy tern (*Anous stolidus*).
Polopolouenga: a white and black spotted bird, probably a turnstone.
Takupu: the booby (*Sula leucogaster*).
Taiko: the dusky shearwater (*Puffinus obscurus*).
Tala: *Sterna lunata*.
Talakoka: another variety of plover with two stripes on the back coming together to form a V on the breast.
Talauea: a sea bird with white breast and black back, in size midway between the tern and the booby; a visiting and nonresident bird (*Sterna lunata* or *Thalasseus bergii*).
Tavake mokomoko: the white-tailed tropic bird, a resident (*Phaeton lepturus*).
Tavake toto: the scarlet-tailed tropic bird; it does not lay on Pukapuka and is a rare visitor today (*Phaeton rubricauda*).
Tobbe: the wild grey duck (*Anas superciliosa*).
Tuli: a sandpiper (*Heteroscelus incanus*).
Wili: a long-winged, spotted sea bird, probably a species of tern.

SHELLFISH

227 *Tridacna* shellfish (*payua*) is obtained from the lagoon corals with the aid of a cutting implement (*kalo payua* or *maniu payua*) of *ngangie* wood about 12 inches long. One end is a double-edged, pointed, sharpened blade (*kalo*). The other end (*kalekalo*) is square and has a cutting edge on one side only. Between the two blades is a smooth section of wood used as a handle. Today a piece of iron with wood lashed along the median line is preferred to the wooden implement. Both men and women procure *payua*. Groups of girls or mixed parties of young men and girls go shellfishing together. An outrigger is often taken out from shore to act as a float.

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By one method the fisherman dives for *payua* in deep water. He cuts the membranes on the two open half-shells with a twist of the *kalo* blade of the knife to prevent the shell from closing. Then with the *kalekalo* blade he makes a circular sweep around both shells and severs the flesh from the shell. He brings the flesh to the surface, leaving the shell below the water. The flesh is placed in a basket tied to the outrigger float. Considerable skill is required to remove *Tridacna* meat with the implement in the time the fisherman can remain submerged.

Another way to procure *payua* is to swim or canoe out to the coral heads of the lagoon and pry (*napuapua*) the shells from the coral with a digging stick. Today an iron crowbar is preferred for this work. The shells are loaded into the canoe and brought ashore, where the flesh is cut out with a *kalekalo* or knife. On coral heads in the lagoon close to Motu Ko are huge piles of *Tridacna* shells (*ngali payua*) which testify to the value placed on *payua* meat in past times.

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The flesh of the pearl shell (*wua ui*) is not eaten. The shells are grasped in the hand and twisted so as to break off the tentacles anchoring the shell to the coral. Pearls were of no value when found inside the shell and were commonly thrown away.

The general name for clams is *pipi*. Various varieties are *pipi yeyenga*, *pipi kula*, *pipi tonga*, and *ngu*. They are not eaten but the shells were formerly valued for cutting implements, coconut graters (for which the clam *ngu* was used), talo scrapers, and occasionally for lancets in surgery.

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126 Periwinkles (*alili*) come over the reef in large quantities at the full of the moon and are especially numerous during the time of the morning rising of the Pleiades. They are collected on the reef by hand by children and adults and form an occasional article of diet, roasted in the shells. The flesh is pulled from the shell with the fingers or a pointed stick. Periwinkles are considered hard to eat and not very satisfying but pleasant enough for a change.

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REEF CREATURES

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Reef creatures found on Pukapuka but not eaten, though sometimes caught on other Polynesian islands for food, are sea porcupines, of which the Pukapukan names four: *wetuks* (a blunt-spined sea porcupine); *tuna* (a

136 sharp, long-spined porcupine); *tala pu mutumutu* (a short-spined porcupine); and *uhulu aka* (a small, bluish-spined porcupine). If a fisherman steps on the *kalamea*, a sharp-spined starfish, when walking on the reef, his foot is stuck full of spines. He turns over the *kalamea*, places his foot on the suction pads of the creature, and allows it to suck out the spines from his foot. Five varieties of bêche-de-mer are: *matua kalou*, *louili kula*, *louili uli*, *louili aka*, and *louili taupulepule*, which live under the sand. *Unukoa* is a mollusk that lives in a tapering tunnel in the coral. If stepped on, its poisonous shell produces terrible sores in the foot. The shellfish *valuyi* (*Nerita polita*) found on beach or reef, is used as a head for the water bottle scraper, also called *valuyi*. If a man found a noose is made in a piece of two-ply twisted sennit and held over the entrance of the sea centipede's hole. Chum of any kind is placed in and around the hole. When the *valow* comes from the hole to get the chum, the noose is drawn tight. Another method is to spear the *valow* through the head as it comes forth to get the chum.

CRABS

Three varieties of crab (generic name *tupea*) are caught on the outer beaches on certain nights of the moon and two stages are distinguished in the monthly growth of the three varieties:

Kaipua are caught on the thirteenth and fourteenth nights; *tupea*, on the fifteenth and sixteenth nights; and *kawu* (robber crab) on the seventeenth and eighteenth nights. During these nights the crabs move from the bush to the sea to wash and change their shells. On other nights of the moon crabs for bait can be obtained inland with more difficulty. On the evening before a man plans a fishing expedition, his children go out with torches after dark, hunting around trees in the bush and in holes. The crabs are put into a basket and kept until ready for use. Enough crabs for one or two weeks' fishing may be collected at one time.

In the first stage of growth (*tuaa te tupea*) during the new and full moon the crab is filled with fat much esteemed as a food delicacy. In the second stage (*pupu te tupea*) the fat has turned into yellow masses of eggs that are bursting from the abdomen of the animal. Crabs are not eaten at this time because neither eggs nor fat are considered tasty. *Kawu* is protected at the present time by a general agreement (*pulenga*) because it is thought to be dying out. Only large *kawus* are killed; young ones caught accidentally are freed. Robber crabs in the reserves are kept as reserve food supplies and are caught only by arrangement by the people of the village. This communal catching and distribution of crabs among the people of the village (*lataua kawu*) enable all the people of the village to share in the food delicacy. If *kawu* were not reserved (*uakawa*), children and active young people would hunt them all the time, and the older people might not receive their fair share.

262 of the catch raw to stave off pangs of hunger. *Kakai*, *pala*, and other big
 252 fish that are particularly tasty raw are usually caught on Saturday and must
 be saved and cooked for the Sunday feast. *Aru* (milk mullet), a small fish
 tasty when raw, is caught only by Yato village from its pond and is generally
 baked for village food divisions.

Large fish are split before cooking into four longitudinal quarters (*io*) by cutting
 along the longitudinal black blood canal and dividing each half into two. In the fore
 sections of the two bottom *io* is the choice part of the flesh called *pakoko* (fig. 7). It is
 fat and tasty and much preferred by pregnant women.

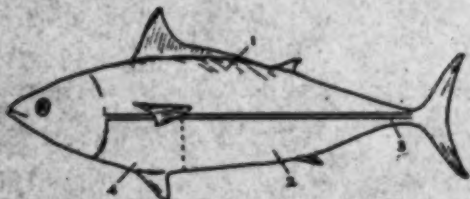


FIGURE 7.—Division of albacore fish: 1, upper sides, *io*; 2, bottom sides, *io* alongs;
 3, dark-colored blood canal; 4, fat portion of flesh (*pakoko*) esteemed as special delicacy.

252 Small fish are not cleaned or scaled (*volcurole*) before cooking. Larger fish are
 roughly scaled by working the thumb along the skin from the tail to the head. Head,
 fins, and internal organs are not removed. Every part of a fish is eaten.

Only two methods are used for cooking fish: grilling (*tuna*) and oven-baking
 (261 *tao*). Fish to be eaten immediately are always grilled; fish to be eaten later in the
 day or on the next day are baked. For grilling large quantities of fish, a special fire
 is always built, even though another fire is already burning in the cook house. The
 grilling fire is built only of coconut shells (*ngaipe*) of the *yakali* or *ato* stage, which
 burn with a clear, fierce flame. The fish are laid on the glowing embers and turned from
 time to time until cooked. Small fish, particularly *haloma*, are spitted on a coconut
 leaflet midrib, about 20 fish on each midrib, with all the heads facing one way and all
 the tails facing the other. They are grilled thus.

251 When there is a larger supply of fish on hand than can be immediately eaten, fish
 is preserved by sun-drying (*makala hi te la ke pakapaka*). Fish that has been dried
 for several days will last indefinitely. Large fish—*kakai*, *pala*, and *aru*—are first split
 into the usual four sections and twice oven-baked. Each section is then cut into smaller
 pieces, placed on *lalew* food platters, and hung from house eaves to dry in the sun.

262 During the flying-fish season when there is an abundance of fish, flying fish are partially
 grilled on hot stones and then sun-dried. They keep for a long time without spoiling.

252 Turtle fish is grilled. The only correct complement for turtle in former days was
 262 *talo*, dish. It was *tapu* to eat coconut with turtle. A man named Yawenga broke this
 rule, so the story goes, and the next time he went turtle fishing he was caught by a
 male turtle, which sounded and drowned Yawenga and then took his body to the legend-
 ary land called *Valu Wetama*. It is likely that this *tapu* against mixing turtle flesh
 and coconut is associated with the displeasure of the turtle when the woman Yina broke
 a coconut on his head. Turtle ova (*wue*) are eaten as well as the meat, fat, and car-
 262 *apae*, raw or grilled. Probably turtle eggs were not eaten formerly but were left to
 136 hatch, an inference from informants' statements that it is only in recent times, since
 people have taken the eggs of the turtle from the nest, that turtles have been dying out.

- 227 The flying-fish practice net (*tas penu*) used by young men to catch pandanus keys thrown at them in practice sport is of similar shape to the flying-fish net, but smaller.

286

It consists of a handle of *uvissu* wood, 4 feet long and $1\frac{3}{4}$ inches in diameter, a crossbar 8 inches long, $\frac{3}{4}$ inch in diameter, and two stout rods of pandanus wood, 3 feet long, which are fastened to handle and crossbar, the ends bent close together and tied without the intermediary of lighter rods (*uatai*) used in the flying-fish net frame. The lashings of framework and attachment of net to frame are similar to those of the flying-fish net. The practice net is made of the two-ply twisted fiber from the aerial roots of *yulu pandanus*. The net is 13 inches wide at the mouth, 18 inches deep.

[284]

- 223 The large bird net (*uatai*, fig. 45, b) differs in shape from the flying-fish net.

The net framework is attached to the handle in such a way that the distal end of the framework rises at an obtuse angle from the plane of the handle. The distal point of the frame is 10 inches higher than the plane of the handle. The framework when viewed sideways presents the shape of an enlarged spatula. When the bird catcher brings down the net upon a flying or roosting bird, the net is reversed so that the distal end of the frame is lower than the plane of the handle. A bird flying from the net is more likely to be caught by the downward projecting spatula-shaped net than it would if the net frame were in the same plane as the handle. The frame and handle are made of light wood so that the net may be easily used in the tree tops. The net itself is made of fine two-ply twisted sennit.

TRAPS AND SNARES

- 226 Because the fauna of a coral atoll is extremely simple, there are in Pukapuka only two types of bird snare and a form of the widely distributed western Polynesian rat trap.

223

- 224 The construction and operation of the rat trap (*vahe hiole*) are shown in figure 47. The trap is baited with mature coconut flesh (*ipipi*) and set in a runway made by rats. The rat is removed by the owner of the trap, who resets the bait stick and spring mechanism.

[171]

The coconut-shell bird snare (*maenga hui*) is shown in figure 48, a. Another bird snare (*maenga tali*), shown in figure 48, b, is set on the beach, weighted down with stones, and the birds driven through it.

- 225 Though not strictly traps or snares, wooden structures (*tu senu*) in which turtles are kept may be described in this context.

231

Stakes of *paupou* or *pukoua* wood, each about 5 feet long and 1 inch in diameter, are driven into the sea bottom a few yards from low water level of the beach. The stakes are arranged about 1 inch apart to form a rectangular enclosure 3 feet square, and 4 feet high. The stakes are bound together at top and bottom with horizontal poles and a continuous lashing which makes transverse turns round vertical and horizontal members. Baby turtles, caught as they emerge from their shells, are placed in these enclosures. They are fed regularly on squid and octopus until they are mature enough to be killed for a special food division. The size of enclosures observed varied according to the number of turtles placed within. An enclosure of the above size housed two turtles with shells about 15 inches long. Bigger structures contained five or more small